

**Rocks** ▪ *Guided Reading and Study*

## Classifying Rocks

*This section explains how geologists classify rocks.*

### Use Target Reading Skills

*As you preview the headings in this section, complete the graphic organizer with questions in the left column. Then as you read, fill in the answers in the second column.*

Question	Answer
What does a rock's color tell about the rock?	

### Introduction

1. Earth's crust is made of \_\_\_\_\_.
2. Circle the letter of each characteristic that geologists use to classify rocks.
  - a. texture
  - b. mineral composition
  - c. hardness
  - d. color

### Mineral Composition and Color

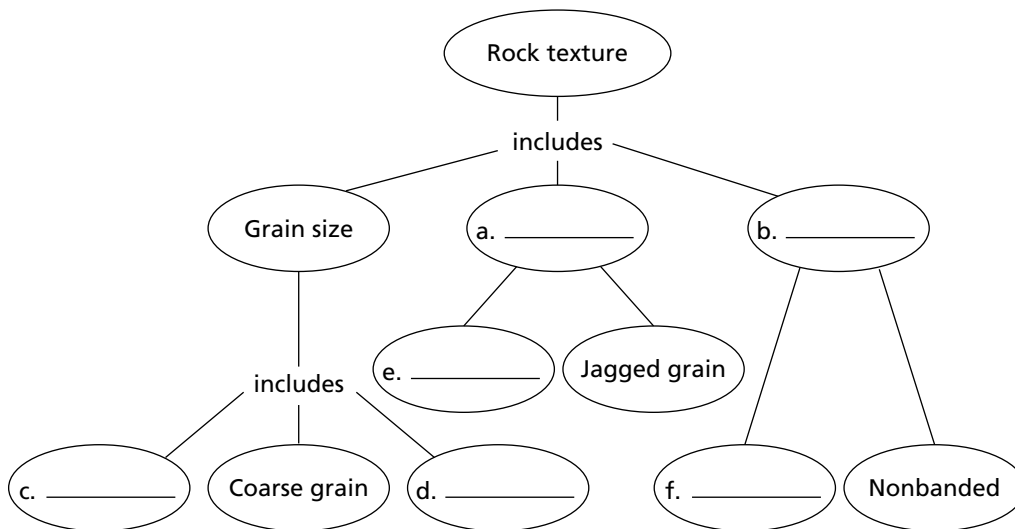
3. What are rocks made of? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
4. Circle the letter of each mineral that is found in granite.
  - a. quartz
  - b. feldspar
  - c. mica
  - d. hornblende

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## Classifying Rocks *(continued)*

### Texture

5. Is the following sentence true or false? Most rocks can be identified by color alone. \_\_\_\_\_
6. The look and feel of a rock's surface is its \_\_\_\_\_.
7. Particles of minerals and other rocks that make up a rock are called \_\_\_\_\_.
8. Is the following sentence true or false? A rock's grains give the rock its texture. \_\_\_\_\_
9. Circle the letter of each sentence that is true about the grain size in rock.
  - a. An example of a coarse-grained rock is diorite.
  - b. An example of a fine-grained rock is slate.
  - c. Grains in fine-grained rock are easy to see.
  - d. Grains in coarse-grained rock are microscopic.
10. Complete the concept map showing the characteristics of rock texture.



- g. Is the following sentence true or false? *Coarse grain* is a term that describes a rock's grain pattern. \_\_\_\_\_

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11. Circle the letter of the choice that determines the grain shape of a rock such as granite.
  - a. Shape of the rock's crystals
  - b. Size of the rock's crystals
  - c. Shape of fragments of other rock
  - d. Coarseness of the rock's grains
12. Circle the letter of the choice that determines the grain shape of a rock such as conglomerate.
  - a. Fineness of the rock's grains
  - b. Size of the rock's grains
  - c. Shape of the rock's crystals
  - d. Shape of fragments of other rock
13. Circle the letter of the description of the grain pattern of gneiss.
  - a. It looks like different colors in bands.
  - b. It looks like a stack of pancakes.
  - c. It looks like waves.
  - d. It looks like rows of squares and rectangles.
14. Circle the letter of the sentence that is true about rocks with no visible grain.
  - a. Some rocks without crystal grains cooled very quickly.
  - b. Some rocks have no visible grain even under a microscope.
  - c. Rocks without crystal grains look rough and coarse.
  - d. An example of a rock with a glassy texture is slate.

**How Rocks Form**

15. How do geologists classify a rock? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
16. List the three major groups of rock.
  - a. \_\_\_\_\_
  - b. \_\_\_\_\_
  - c. \_\_\_\_\_

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17. Complete the compare/contrast table to show the similarities and differences among the types of rocks and how they form.

How Rocks Form	
Type of Rock	How It Forms
a.	Molten rock cools.
b.	Particles are pressed and cemented.
c.	Existing rock is changed.

- d. What do the three major types of rocks have in common? \_\_\_\_\_  
\_\_\_\_\_
- e. How are they different? \_\_\_\_\_  
\_\_\_\_\_
18. The type of rock that forms from magma or lava is \_\_\_\_\_ rock.
19. The type of rock that forms in layers is \_\_\_\_\_ rock.
20. Is the following sentence true or false? Most metamorphic rocks form close to the surface. \_\_\_\_\_